



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/671,786	09/29/2003	Hideyuki Sakaida	Q77624	1053
23373	7590	05/14/2007	EXAMINER	
SUGHRUE MION, PLLC			PATEL, JAYESH A	
2100 PENNSYLVANIA AVENUE, N.W.				
SUITE 800			ART UNIT	PAPER NUMBER
WASHINGTON, DC 20037			2624	
			MAIL DATE	DELIVERY MODE
			05/14/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/671,786	SAKAIDA, HIDEYUKI	
	Examiner	Art Unit	
	Jayesh A. Patel	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 27 April 2007.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 1,2,5-10 and 13-20 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 3,4,11 and 12 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 29 September 2003 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/05 and 09/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The response to the Election/Restriction dated 04/27/07 has been entered and made of record.
2. Applicant has elected species of group II (Figs 9 and 11) on which Claims 3,4,11 and 12 are readable.
3. Only Claims 3,4,11 and 12 will be considered for further prosecution.
4. Claims 1-2,5-10 and 13-20 are cancelled from further prosecution.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 3,4,11 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Wilkins et al. (US 6226353) hereafter Wilkins.

5. Regarding Claim 3, Wilkins discloses a method of restoring phase information on a radiation transmitted through an object on the basis of detection data obtained by detecting intensity of the radiation transmitted through the object (**Figs 1 and 2**), said method comprising the steps of: (a) obtaining plural sets of

detection data respectively representing plural kinds of radiation image information on plural detection planes at different distances from the object at **(Col 3 Lines 66-67, Col 4 Lines 6-7 and Col 12 Lines 4-23)** by using a radiation having a predetermined wavelength with energy from 16 keV to 30 keV to detect intensity of the radiation on said plural detection planes at **(Col 6 Line 40)**; and (b) restoring phase information on the radiation transmitted through the object on the basis of said plural sets of detection data so as to obtain phase data at **(Col 4 Lines 13-19)**. Wilkins also discloses the planes in Fig 2.

6. Regarding Claim 4, Wilkins discloses a method according to claim 3, further comprising the step of generating image data on the basis of the phase data obtained at step (b) at **(Col 4 Lines 13-17)**.

7. Regarding Claim 11, Wilkins discloses an apparatus for restoring phase information on a radiation transmitted through an object on the basis of detection data obtained by detecting intensity of the radiation transmitted through the object in **(Fig 1 and 2 and Col 4 Lines 24-56)**, said apparatus comprising: a radiation source **(Fig 1 Element S)** for emitting a radiation having a predetermined wavelength with energy from 16 keV to 30 keV at **(Col 6 Line 40)**; detecting means **(Fig 1 Element D)** for detecting intensity of the radiation emitted from said radiation source and transmitted through the object so as to obtain detection data representing radiation image information; driving means **(Fig 1**

Element d, Col 10 Lines 1-3 and Col 12 Lines 4-18) to be used for changing a distance between the object and said detecting means; and phase data calculating means for restoring phase information on the radiation transmitted through the object on the basis of plural sets of detection data obtained by detecting intensity of the radiation at different distances so as to obtain phase data at (**Fig 1 and 2 and Col 4 Lines 24-56**). The driving means is inherent because the detector cannot move on it's own. Wilkins discloses the detector plate being moved by a distance d in Fig 1.

8. Regarding Claim 12, Wilkins discloses an apparatus according to claim 11, further comprising image constructing means for generating image data on the basis of the phase data obtained by said phase data calculating means (**Fig 1 Element D and Col 4 Lines 24-56**).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jayesh A. Patel whose telephone number is 571-270-1227. The examiner can normally be reached on M-F 7.00am to 4.30 pm (5-4-9). If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jingge Wu can be reached on 571-272-7429. The fax

phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jayesh Patel
05/10/07

JP



JINGGE WU
SUPERVISORY PATENT EXAMINER